

Appl. No.: 10/643,780  
Amdt. dated 01/30/2006  
Reply to Office action of November 2, 2005

## **REMARKS**

This Amendment is filed in response to the Office Action dated November 2, 2006. Applicant notes with appreciation the Examiner's continued thorough examination of the application as evidenced by the latest Office Action. This Amendment amends Claims 17 and 18 and adds new Claims 25-30. As such, the application now includes Claims 1-30, with Claims 1, 6, 10, 15, 19, 23, 25, and 30 being independent claims. Applicant respectfully submits that all of the claims of the application are patentable and hereby requests reconsideration and allowance of the claims in light of the following remarks.

### **I. Claims 6-14 and 19-24 Are Allowed**

Applicant notes with appreciation the Examiner's indication that Claims 6-14 and 19-24 are allowed.

### **II. Claims 17 and 18 Are In Proper Form**

On page 2, the Office Action rejects Claims 17 and 18 for lacking antecedent basis. Applicant has amended these claims to provide the necessary antecedent basis. Applicant respectfully submits that these claims are now in proper form.

### **III. Claims 1-5 and 15-18 Are Patentable**

On pages 2-3, the Office Action alleges that Claim 1 is disclosed by the combination of U.S. Patent No. 6,663,455 to Lang in combination with U.S. Patent No. to 6,015,472 to Garcia. The Office Action alleges that Claims 15 and 16 are disclosed in the '455 Lang patent. Specifically, the Office Action argues that: 1) the apparatus of the '455 Lang patent is neutrally buoyant under ambient conditions and 2) the welded joint is a "structural member" as recited in the claims. Applicant respectfully disagrees with these rejections.

The claimed invention uses a structural member coupled to an inflatable chamber. In one embodiment of the present invention, the structural member has a weight sufficient to counteract the lift caused by the gas located in the chamber. This renders the apparatus neutrally buoyant, such that if placed at a certain height above ground, the apparatus will typically remain at that

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position without rising or falling. Applicant first continues to argue that the welded joint is not a structural member, but instead is just a seam for the two parts of the balloon. The seam does not add structural support to the balloon of the '455 Lang patent.

Second, Applicant argues that the '455 Lang patent nowhere teaches or suggests that the balloon of the '455 Lang patent is neutrally buoyant. The term "neutrally buoyant" means that when untethered, the balloon remains at substantially a same altitude. The '455 Lang patent actually teaches away from neutrally buoyant by stating that "the thickness and the density of the coating are preferably so low as not substantially to add weight to the balloon, such that it can still rise effectively when inflated with a suitable gas of low density." If the material is made light enough so that the balloon can rise, then it is not neutrally buoyant. The '455 Lang patent discloses a balloon that is not neutrally buoyant, but instead, must be tethered to keep the balloon from floating to higher altitudes. As such, Applicant respectfully disagrees that the '455 Lang patent discloses a neutrally buoyant as is recited in independent Claims 1 and 15. Applicant, therefore, respectfully submits that Claims 1-5 and 15-18 are patentable.

#### **IV. Claims 25-29 Are Patentable**

Applicant has added new Claims 25-29. Independent Claim 25 recites that the "structural member is formed of a different material from that of the flexible material." In this regard, the "welded joint" of the '455 Lang patent is formed by the flexible material itself. The '455 Lang patent does not disclose that the welded joint is of a different material. As such, Applicant respectfully submits that Claims 25-29 are patentable.

#### **V. Claim 30 Is Patentable**

Newly added independent Claim 30 recites among other things that the apparatus under ambient conditions floats in air at substantially a same altitude independent of a tether. As discussed above, the '455 Lang patent nowhere teaches or suggests this aspect of the claimed invention. The '455 Lang patent actually teaches away from being neutrally buoyant by stating that "the thickness and the density of the coating are preferably so low as not substantially to add

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weight to the balloon, such that it can still rise effectively when inflated with a suitable gas of low density." As such, independent Claim 30 is patentable over the cited references.

### CONCLUSION

In light of the amended and newly added claims and the remarks above, Applicant respectfully submits that Claims 1-30 of the application are patentable. Applicant therefore respectfully requests that a Notice of Allowance be issued in the application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

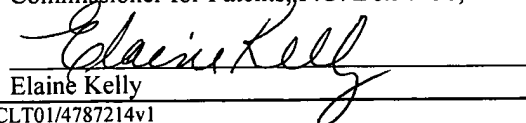


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#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January 30, 2006.



Elaine Kelly

CLT01/4787214v1